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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,836	07/24/2001	Andrew R. Reading	SEN01 P-338A	3877

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EXAMINER
POLITZER, JAY L

ART UNIT	PAPER NUMBER
2856	

DATE MAILED: 05/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
09/911,836	Reading et al
Examiner	**Art Unit**
Jay Politzer	2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *3,24/03 and 4/22/03*.

2a) ☒ This action is **FINAL.** 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *19-49 and 59-81* is/are pending in the application.

4a) Of the above, claim(s) *44-49* is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *19-43 and 59-81* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

REJECTIONS UNDER 35 U.S.C. § 112:

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 60 and 72-73 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. For example:

> Regarding Claim 60; if the zones are opened to each other, what does the dividing wall do? Also, how can different temperatures be maintained if there is an opening?
>
> Regarding Claim 72; the claim is not understood.

REJECTIONS OVER PRIOR ART UNDER 35 U.S.C. § 103:

3. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

> "A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary

skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person."

4. Claims 19, 22-25, 27, 29-30, 36, 39 42-43, 59, 61-63, 66, 68-71 and 74-78 are rejected under 35 U.S.C. § 103 as being unpatentable over Breton WO 99/35480, hereinafter Breton1 in view of Leistner et al, hereinafter Leistner.

Regarding Claims 19, 22-24, 27, 29 and 42; except for the multiple differently heated zones, Breton1 teaches all of the claim, except for two zones of different temperature, in the abstract and in Fig 1. Leistner teaches two zones of different temperature in the abstract. It would have been obvious to one of ordinary skill in the art at the time of the invention to use Leistner's heating arrangement in Breton1 because Leistner teaches that the "gases must be maintained above the dew point".

Regarding Claim 25; Breton1 is uncooled.

Regarding Claim 30; see Breton1 P 15, Li 13-14 wherein it is not stated if the sensor is heated or not. It would have been obvious to one of ordinary skill in the

art at the time of the invention to heat the NDIR sensor to avoid water interference.

Regarding Claim 36; there is no reason to cool the NDIR sensor.

Regarding Claim 39; see Breton1, P 15, Li 15.

Regarding Claim 43; see Breton1 P 15, ¶ 2, P 17, Li 15-19, and elsewhere.

Regarding Claim 59; see Leistner Fig 5 wherein there are three compartments K1, K2, K3 and the dividing wals are 14a and 14b.

Regarding Claims 61 and 77; obviously, most housings are moisture impervious.

Regarding Claims 62 and 81; this is an obvious adaptation because one doesn't want to conduct fumes into the vehicle.

Regarding Claims 63, 69-71 and 76; the aspect ratio and cylindrical and aerodynamic shape are not taught. It would have been obvious to one of ordinary skill in the art at the time of the invention to choose an aspect

ratio and shape that fits the geometry of the situation.

Regarding Claim 66; shock mounting is not taught. It would have been obvious to one of ordinary skill in the art at the time of the invention to shock mount any sensitive vehicle mounted analyzer.

Regarding Claims 68, 74-75 and 78; see Bretton1, abstract, for a particulates detector and flow-meter.

5. Claims 64-65 and 79-80 are rejected under 35 U.S.C. § 103 as being unpatentable over Breton1/Leistner as applied to claim 19, above, in view of Stedman et al, hereinafter Stedman.

Regarding Claims 64-65 and 79-80; Breton1/Leistner fail to teach wireless communications. Stedman teaches wireless communications at Col 4, Li 8-15. It would have been obvious to one of ordinary skill in the art at the time of the invention to employ wireless communications to monitor operations of a fleet of vehicles.

6. Claim 28 and 38 are rejected under 35 U.S.C. § 103 as being unpatentable over Breton1/Leistner as applied to claim 19, above, in view of Tripathi et al, hereinafter Tripathi.

Regarding Claim 28 and 38; Breton1/Leistner fail to teach a heated zirconium oxygen sensor. Tripathi teaches a heated zirconium oxygen sensor at Col 5, Li

37-41 that is also sensitive to HC concentration. It would have been obvious to one of ordinary skill in the art at the time of the invention to use Tripathi's sensor in Breton1 because Breton1 fails to teach details about the oxygen sensor and Tripathi's sensor is recommended for this task.

7. Claims 37 and 40-41 are rejected under 35 U.S.C. § 103 as being unpatentable over Breton1/Leistner as applied to claim 19, above, in view of Ensfield et al, EP 1 176 412, hereinafter Ensfield.

Regarding Claims 37 and 40-41; Breton1/Leistner fails to teach UV detection. Ensfield teaches UV detection in the abstract. It would have been obvious to one of ordinary skill in the art at the time of the invention to use UV detection with Breton1/Leistner because it is useful for detecting nitrogen based gases.

8. Claims 24 and 26-27 are rejected under 35 U.S.C. § 103 as being unpatentable over Breton1 in view of Leistner as applied to claim 23, above, and further in view of Breton US 6,148,656, hereinafter Breton2.

Regarding Claim 24 and 26; Breton1 fails to teach a heated probe line. Breton2 teaches a heated probe line at Col 10, Li 47-53. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a heated probe line in Breton1 to avoid water condensation in the analytical instruments.

Regarding Claim 27; see Breton2 Col 7, Li 14-16.

9. Claims 31-33, 35 and 67 are rejected under 35 U.S.C. § 103 as being unpatentable over Breton1 in view of Leistner as applied to claim 29, above, and further in view of Mathews et al, hereinafter Mathews.

Regarding Claim 31; Breton1/Leistner fail to teach a FID. Mathews teaches a FID in the abstract. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a FID for gas analysis because it is a standard instrument for this purpose.

Regarding Claim 32; FIDs need to operated at high temperature.

Regarding Claim 33; Mathews analyzes vehicle emissions.

Regarding Claim 35; see Mathews Col 1, Li 6.

Regarding Claim 67; Breton1/Leistner fail to teach a gasoline and diesel analyzer. Mathew teaches a gasoline and diesel analyzer at Col 1, Li 4-10. It would have been obvious to one of ordinary skill in the art at the time of the invention to be able to analyze gasoline and diesel gasoline and diesel emissions because of efficiencies of manufacture and sales.

10. Claim 34 is rejected under 35 U.S.C. § 103 as being unpatentable over Breton1/Leistner/Mathews as applied to claim 31, above, and further in view of Bandurski et al, hereinafter Bandurski.

Regarding Claim 34; Breton1/Leistner/Mathews fail to teach FID operating temperatures. Bandurski teaches operating temperatures at Col 1, Li 14-29. It would have been obvious to one of ordinary skill in the art at the time of the invention to follow Bandurski's teachings about operating temperatures.

FINAL ACTION:

11. Applicant's amendment necessitated the new grounds of rejection. Accordingly, **THIS ACTION IS MADE FINAL.** See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

REMARKS:

12. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

DESCRIPTION OF UNAPPLIED ART:

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure because it teaches other features of the claimed invention.

INQUIRIES:

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Jay L. Politzer whose telephone number is (703) 305-4930 and whose facsimile number is (703) 308-7382

15. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Hezron E. Williams, can be reached at (703) 305-4705.

16. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4900.

jlp **5/7/03**

JLP

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